

① Given the points  $(-3, 4)$  and  $(1, -5)$ , find an equation for the line passing through the points in point-slope and slope-intercept form.

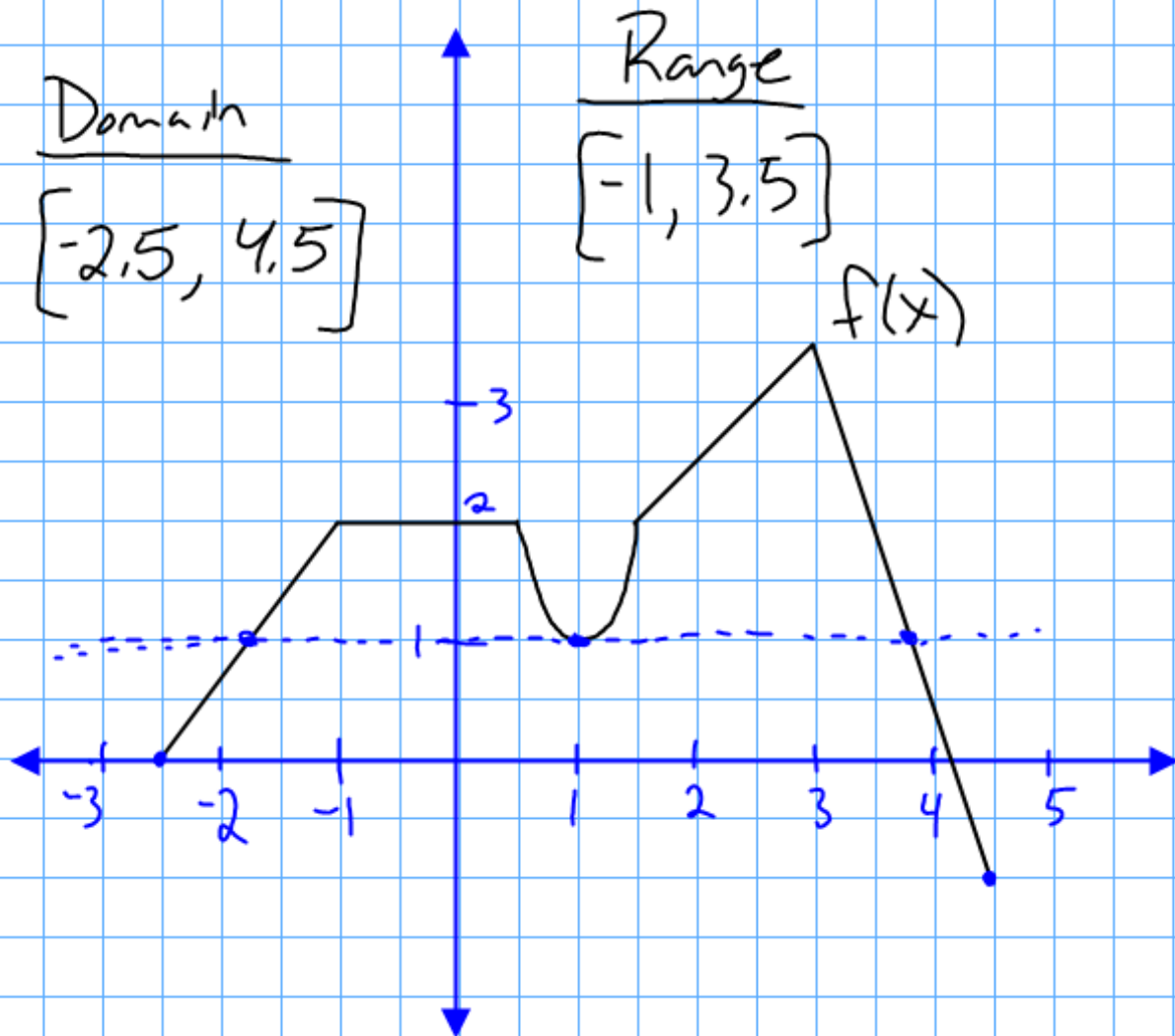
② Use the graph to answer the questions:

(a) What are the domain and range for the graph?

(b) Find  
 $f(1) = 1$   
 $f(0) = 2$   $f(-1) = 2$   
 $f(-2) = 0.75$   
 $f(3) = 3.5$

(c) What  $x$  makes  $f(x) = 1$ ?

$$x = 1, -1.75, 3.75$$



Point-slope

$$y = m(x - x_1) + y_1$$

$m = \text{slope}$   
 $(x_1, y_1)$  point

Slope-intercept

$$y = mx + b$$

$m = \text{slope}$   
 $b = y\text{-int.}$

Slope

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

# Warm-up

$$1. \quad \frac{-5-4}{1+3} = \frac{-9}{4} \quad \text{Slope} = -9/4$$

$$y-4 = -9/4(x+3)$$

$$y-4 = -9/4x - 6.75$$

$$y = -9/4x - 2.75$$

point slope

$$y - y_1 = m(x - x_1)$$

$$y = m(x - x_1) + y_1$$

$$\begin{array}{c} \uparrow \quad \quad \uparrow \quad \nearrow \\ -9/4 \quad \quad pt. \\ (x-1) - 5 \end{array}$$

$$(-3, 4)(1, -5)$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{-5 - 4}{1 - -3} = -\frac{9}{4}$$

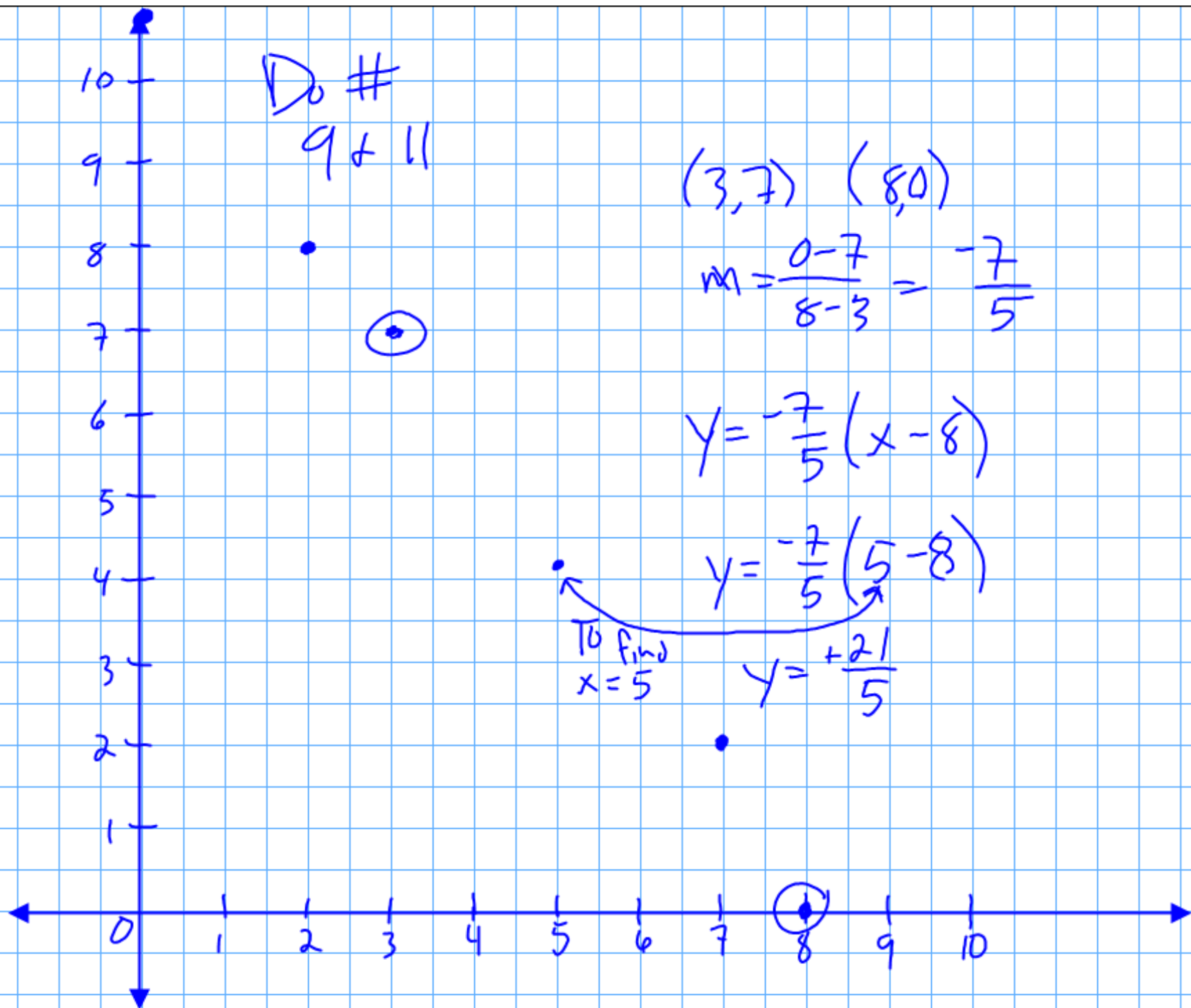
Point-slope

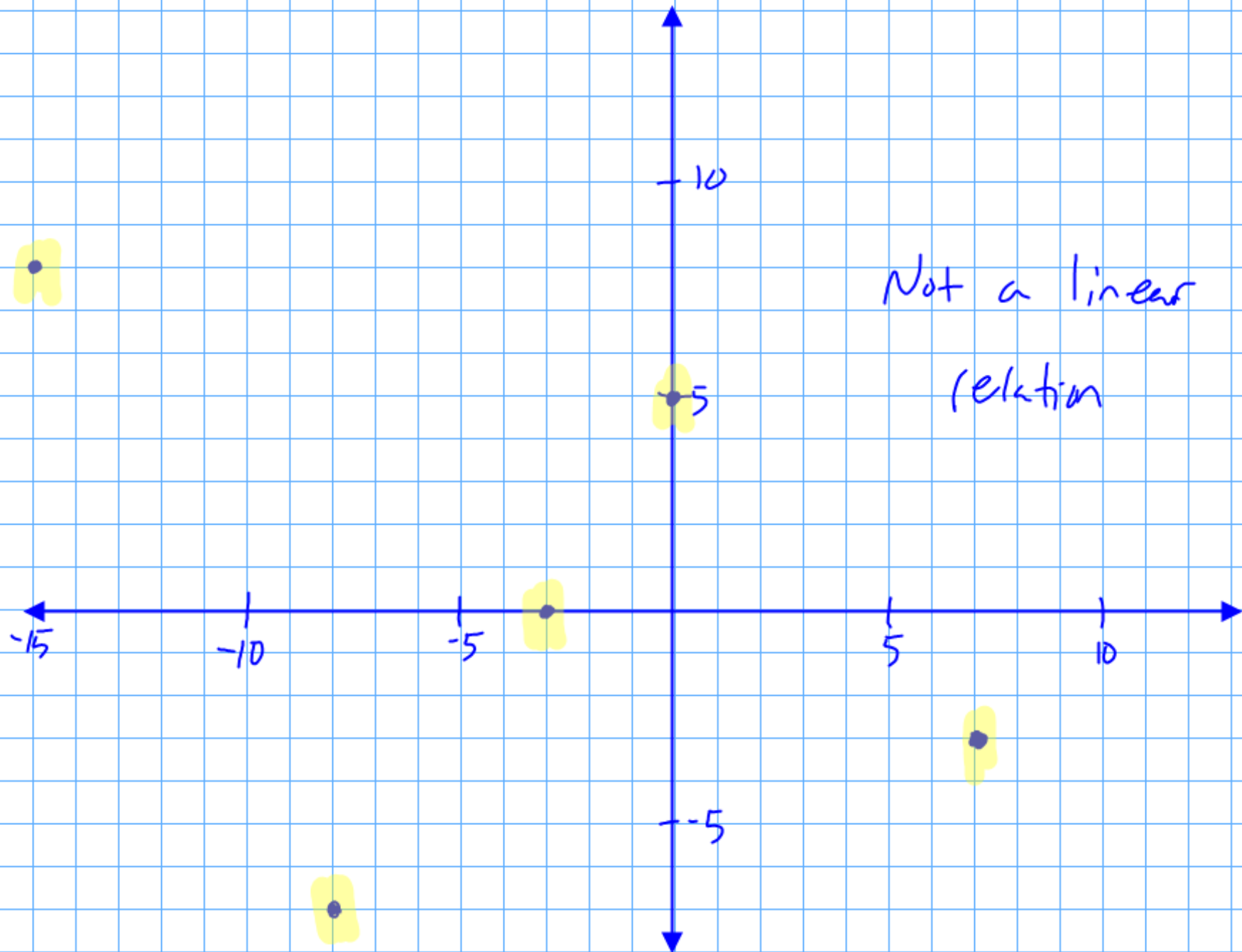
$$y = m(x - x_1) + y_1$$

pt.  
↙ ↘

$$y = -\frac{9}{4}(x + 3) + 4$$

$$y = -\frac{9}{4}x + -2.75$$





- Made plot by hand
- pick 2 points to represent data
- make equation from those two points.

→ Stat → edit, enter data in  $L_1$  &  $L_2$   
(x) (y)

## F-Value

8-10 get

6-8 pretty good

3-5 ahh

0-3 No

→ graph



Sect. 2.2 p. 69 #78

Sect. 2.4 p. 81 #2, 5, 15-18, 20 (by hand)

- Turn in Hw